

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A waveguide produced by:

depositing a first metal layer on a substrate;

depositing a sacrificial material on the first metal layer;

depositing a second metal layer on the sacrificial material, the second metal layer contacting the first metal layer and defining therebetween a cavity for the waveguide, the cavity filled with the sacrificial material; and

removing the sacrificial material.

Claim 2 (original): The waveguide of claim 1, wherein removing the sacrificial material comprises thermally decomposing the sacrificial material.

Claim 3 (original): The waveguide of claim 1, wherein the sacrificial material comprises polynorbornene.

Claim 4 (original): The waveguide of claim 1, wherein removing the sacrificial material comprises etching the sacrificial material.

Claim 5 (original): The waveguide of claim 1, wherein removing the sacrificial material comprises dissolving the sacrificial material.

Claim 6 (original): The waveguide of claim 1, wherein the first and second metal layers comprise gold.

Claims 7-20 (canceled)

Claim 21 (new): The waveguide of claim 1, further produced by plating the first metal layer before depositing the sacrificial material.

Claim 22 (new): The waveguide of claim 21, further produced by plating the second metal layer before removing the sacrificial material.

Claim 23 (new): The waveguide of claim 1, further produced by plating the second metal layer before removing the sacrificial material.

Claim 24 (new): The waveguide of claim 1, further produced by, after depositing the second metal layer,

- depositing a photoresist material on the second metal layer;
- patterning the photoresist material to a desired width of the waveguide;
- etching the second metal layer; and
- removing the photoresist material.

Claim 25 (new): The waveguide of claim 1, further produced by, after depositing the second metal layer,

- depositing a photoresist material on the second metal layer;
- patterning the photoresist material to a desired length of the waveguide;
- etching the second metal layer; and
- removing the photoresist material.